

DOCUMENT RESUME

ED 164 187

RC 011 006

AUTHOR Ogletree, Earl J.; Mandujana, Jerry
TITLE Cognitive Style of Mexican-American Children.
PUB DATE [75]
NOTE 7p.; Not available in hard copy because of poor print quality of original document

EDRS PRICE MF-\$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS Acculturation; *Cognitive Style; *Cultural Factors; Economically Disadvantaged; Grade 1; Grade 2; *Mexican Americans; Primary Education; *Sex Differences; *Social Factors
IDENTIFIERS Child Rating Observable Behavior Inventory; *Field Dependence Independence; Illinois (Chicago)

ABSTRACT

In order to test previous research findings indicating that the degree of field dependency or independency in children is a function of culture, social class, sex, and age, this study sought to determine the relationship of sex and age to the cognitive style of Mexican American first and second graders from a Chicago school. Thirty two Mexican American children were randomly selected from a population of 75; the sample included equal numbers of first and second graders and boys and girls of ages seven and eight years. The school was located in a predominately Mexican American but ethnically mixed community. The Child Rating Observable Behavior Inventory was used to determine field dependency. The study was conducted over a three month period. The results showed a significantly higher percentage of Mexican American children were field dependent. Girls were also more field dependent than boys. The findings suggest that cognitive style is a function of age, maturation, and sex, of which the latter two factors are influenced by culture and social class. They further suggest that teachers must give greater attention to the cognitive style differences of children from divergent cultural backgrounds. (Author/RC)

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COGNITIVE STYLE OF MEXICAN-AMERICAN CHILDREN

by

Earl J. Ogletree

and

Jerry Mandujana

Chicago State University

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The past decade has seen increased research into the cognitive style of socially and culturally different children. Many educators believe the high rate of academic failure among these students is a result of the incompatibility between their cognitive or learning style and the teaching methodology of the schools (Ramirez 1972).

Ramirez (1974), Cohen (1969), Witkins (1967) and others have examined two cognitive styles that explain the way the learner perceives, organizes and cognizes his environment. One is field dependent cognition in which the learner does better on verbal tasks of intelligence tests, learn better when the material has human content and is characterized by fantasy and humor, perform better when authority figures express confidence in their ability; and conversely, their performance is depressed when authority figures express doubt about them (Ramirez 1974).

The second is field independent cognition in which the learner does better on visual-motor tasks, (i.e. putting parts together to make a whole or extracting parts to form a whole), on intelligence tests; learns better when material is abstract, impersonal, and tied to reality. Their performance is not significantly affected by the opinions of authority figures (Ramirez 1974).

The third level is the combination of field dependent and independent cognitive style. Here the child is able to utilize both modes of cognition. Research indicates field dependent and independent cognitive styles are influenced by culture, social class, age and sex. Ramirez and Price-Williams (1974), and Ramirez, Herold and Castaneda (1974) have characterized Mexican-American children who have close identities with the traditional Mexican culture as being more field dependent than Mexican-American children who have been acculturated or assimilated into the American middle class culture. Ramirez (1971) found "Mexican-American children significantly more field dependent (sensitive) than anglo children." This stems from the hispanic cultural value exphasizing family and group identity, while the anglo culture stresses individualism.

Ruble and Nakamura (1972) believe that cognitive is also a function of social class. Children from middle class backgrounds are more often field independent than their peers from lower socioeconomic backgrounds.

Cognitive style is also influenced by the different ways boys and girls are reared in the different cultures and social classes. In the unaccultured or unassimilated cultures (e.g. Mexican-Americans) and in the lower social classes, not only are the children afforded less preschool preparatory and general environmental middle-class experiences, but girls are more often sheltered and protected than boys. Girls are reared in a shared-function environment in which conformity and dependency are stressed, whereas boys are encouraged to be independent, assertive and exploratory in their behavior (Cohen 1969). As a consequence boys from

these backgrounds are more field independent than girls in the early elementary grades. Witkins⁽¹⁹⁶⁷⁾ concluded that boys and men tend to be more field independent than girls and women.

There is, in addition, a correlation between age and cognitive style. Younger children tend to be more field dependent as compared to their older field independent counterparts (Witkins 1967).

In summary, research indicates the degree of field dependency or independency in children is a function of culture, social class, sex and age (maturation).

Problem

Therefore, the purpose of this study was to determine the relationship of sex and age to the cognitive style of Mexican-American children.

Population and Sample

Thirty-two Mexican-American children were randomly selected from a population of 75 Mexican-American first and second graders at a Chicago public school. The sample included equal numbers of first and second graders and boys and girls of ages seven and eight years. The neighborhood school was located in a predominately Mexican but ethnic-mixed working class community.

Procedure

The Child Rating Observable Behavior Inventory^{*} was used to determine the field dependency and independency of the sample. The study was conducted over a two month period during which observations were recorded three days a week for two hours, one hour in the morning and afternoon, respectively, as the children participated in a variety of learning

^{*}Ramirez, Herold, and Castaneda, New Approaches, No. 4, Field Sensitivity and Field Independence in Children (Texas: The Dissemination Center for Bilingual, Bicultural Education, 1974), pp. 11-12.

activities. The children were unaware of their participation in the study. The data were tabulated in percentages and the t test employed to determine significance (.05).

Results

The findings showed a significantly higher percentage (56%) (.05) Mexican-American children were field dependent than field independent (9%) and bicognitive (34%). When the data were examined by sex, 68 percent (.05) of the girls as compared to 43 percent of the boys were field dependent. Similarly 12 percent of girls as opposed to 6 percent of boys were field independent. However, 50 percent (.05) of the boys in contrast to only 18 percent of the girls were bicognitive. (Boys had passed through the field independent to the bicognitive stage). Analysis of the data by age revealed seven year olds to be more field dependent than eight year olds, 64 percent to 50 percent (.05) respectively. No seven year olds were field independent, while 16 (.05) percent of eight year olds were field independent in cognitive style. An almost equal percentage (33% to 35%) of seven and eight year olds were bicognitive.

Conclusions

The results of this study showing that girls are more field dependent than boys confirms the findings of Ramirez and Price-Williams (1974), Witkins (1967) and Cohen (1969). On the other hand, Ruble and Nakamura's (1974) study found no difference in cognitive styles between boys and girls. The disparity in results appears to be the socioeconomic level of the samples. The present study included a lower socioeconomic

sample, while Ruble and Nakamura (1974) used a middle class population in which the girls were less sheltered and encouraged to be more active and aggressive participants in academic, intellectual and social functions, than girls from lower socioeconomic families. Since boys from all socioeconomic backgrounds are expected to be outgoing and aggressive, the greater field dependency of girls in the present study appears to be the result of cultural influence.

This is also why a higher percentage of boys than girls were bicognitive. That is, to be bicognitive a child must possess and work with both cognitive styles---field dependent and field independent. This reasoning also accounts for the correlation between field independence and age. Maturation is not only a product of age, but experience as well.

The findings of this study suggest that cognitive style is a function of age, maturation and sex of which the latter two factors can be and are influenced by culture and social class. Ramirez (1971) has implied that the child who is raised in the traditional Mexican cultural patterns will tend to be more field dependent (e.g. in the case of Mexican girls). However, Henderson and Merritt (1968) found that the difference in cognitive styles is not so much the function of culture (being more or less Mexican), but of social class. They made the distinction between low and high potential. Mexican families, i.e., lower and middle class life styles as determined by the degree of cultural assimilation. Keogh and Tardo (1975) support Henderson and Merritt's (1968) conclusions.

The analysis of the results indicate that greater attention should be paid to the cognitive style differences of children from divergent cultural and socioeconomic backgrounds. Teachers must be able to recognize the cognitive styles of their students in order to meet their academic needs in a compatible intellectual manner.

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